



## Annex I Foresthill Public Utility District

### I.1 Introduction

This Annex details the hazard mitigation planning elements specific to Foresthill Public Utility District (FPUD or District), a new participating jurisdiction to the 2021 Placer County Local Hazard Mitigation Plan (LHMP) Update. This Annex is not intended to be a standalone document, but appends to and supplements the information contained in the Base Plan document. As such, all sections of the Base Plan, including the planning process and other procedural requirements apply to and were met by the District. This Annex provides additional information specific to FPUD, with a focus on providing additional details on the risk assessment and mitigation strategy for this District.

Note: FPUD participated in the original 2005 Placer County LHMP. A copy of that document could not be located by FPUD, Placer County, or Cal OES. Additionally, staff turnover in the past 16 years has reduced institutional memory of that 2005 Plan. It can be assumed that none of FPUD's proposed mitigation actions were completed, FPUD's mitigation priorities at that time are unknown, and that the 2005 Plan was not incorporated into any FPUD planning mechanisms. Development in the District since 2005 was described by FPUD as minimal, and a general description of more recent development in the District is included in Section I.5.2 of this Annex.

### I.2 Planning Process

As described above, the District followed the planning process detailed in Chapter 3 of the Base Plan. In addition to providing representation on the Placer County Hazard Mitigation Planning Committee (HMPC), the District formulated their own internal planning team to support the broader planning process requirements. Internal planning participants, their positions, and how they participated in the planning process are shown in Table I-1. Additional details on plan participation and District representatives are included in Appendix A.

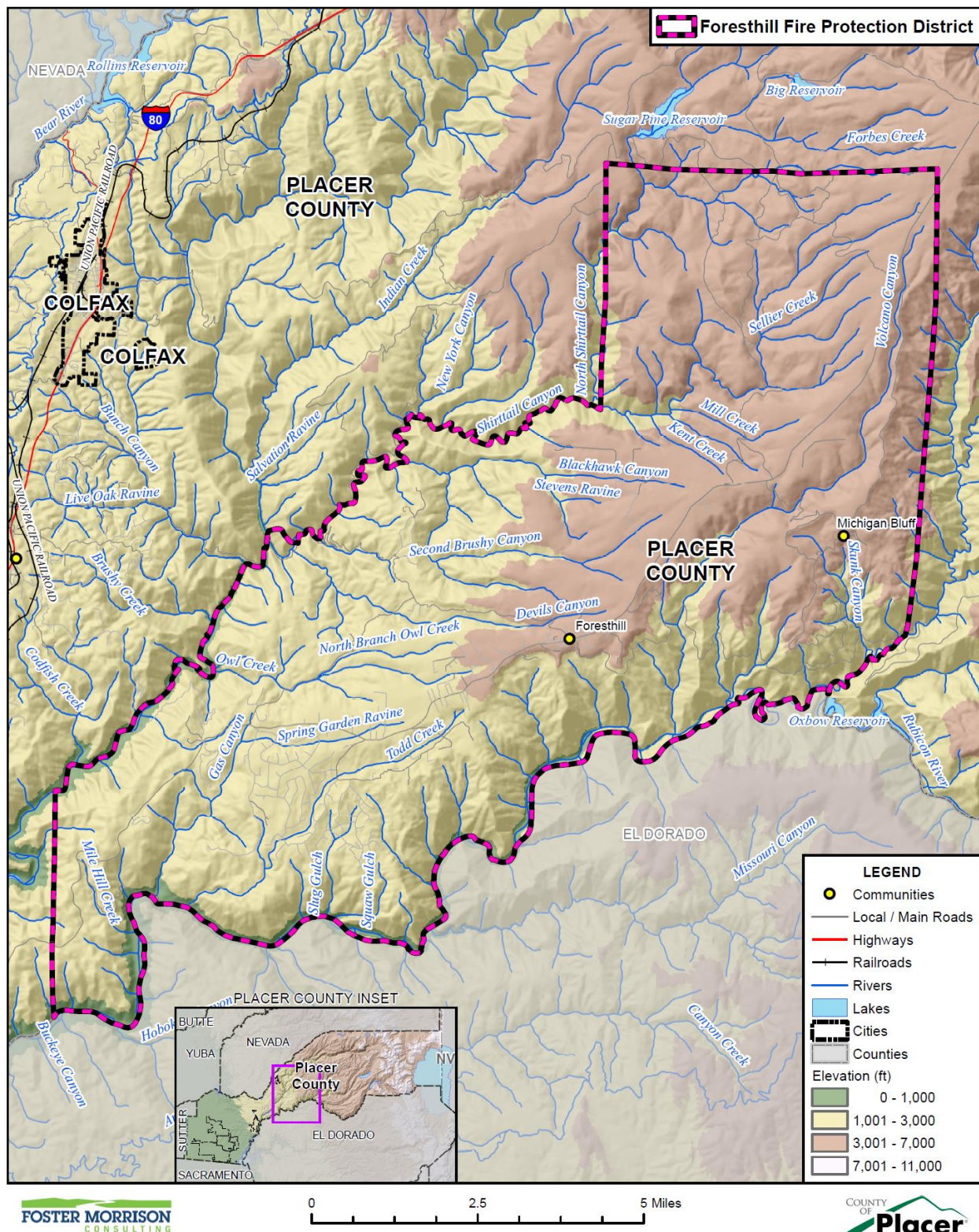
*Table I-1 FPUD – Planning Team*

Name	Position/Title	How Participated
Henry N. White	General Manager	Lead the effort. Attended meetings. Provided input for annex.

### I.3 District Profile

The District profile for the FPUD is detailed in the following sections. Figure I-1 displays a map and the location of the District within Placer County.

Figure I-1 FPUD



### **I.3.1. Overview and Background**

Foresthill Public Utility District was formed in 1950 pursuant to the provisions of Section 15501 et seq. of the California Public Utilities Code for the purpose of operating a water system (the "Enterprise"). The District's service area comprises the unincorporated community of Foresthill, California, located in Placer County approximately 60 miles northeast of Sacramento.

The District is governed by a five member Board of Directors and currently employs seven full-time employees and one part-time employee. The District currently incorporates an area of approximately 13,000 acres and contains primarily residential development. The District as of February 1, 2020 provides 2,034 water service connections.

## **I.4 Hazard Identification**

FPUD identified the hazards that affect the District and summarized their location, extent, frequency of occurrence, potential magnitude, and significance specific to District (see Table I-2).



**Table I-2 FPUD—Hazard Identification Assessment**

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/Severity	Significance	Climate Change Influence
Agriculture Pests and Diseases	Limited	Unlikely	Negligible	Low	Low
Avalanche	Limited	Unlikely	Negligible	Low	Low
Climate Change	Limited	Unlikely	Negligible	Low	–
Dam Failure	Limited	Unlikely	Negligible	Medium	Low
Drought & Water Shortage	Limited	Likely	Limited	Medium	Low
Earthquake	Limited	Unlikely	Negligible	Low	Low
Floods: 1%/0.2% annual chance	Limited	Unlikely	Negligible	Low	Low
Floods: Localized Stormwater	Limited	Likely	Negligible	Low	Low
Landslides, Mudslides, and Debris Flows	Limited	Likely	Negligible	Low	Low
Levee Failure	Limited	Unlikely	Negligible	Low	Low
Pandemic	Limited	Unlikely	Negligible	Low	Low
Seiche	Limited	Unlikely	Negligible	Low	Low
Severe Weather: Extreme Heat	Extensive	Highly likely	Negligible	Low	Low
Severe Weather: Freeze and Snow	Extensive	Highly likely	Negligible	Low	Low
Severe Weather: Heavy Rains and Storms	Extensive	Highly likely	Negligible	Low	Low
Severe Weather: High Winds and Tornadoes	Limited	Unlikely	Negligible	Low	Low
Tree Mortality	Extensive	Highly likely	Catastrophic	Low	Low
Wildfire	Extensive	Highly likely	Catastrophic	Low	Low
<p><b>Geographic Extent</b>  Limited: Less than 10% of planning area  Significant: 10-50% of planning area  Extensive: 50-100% of planning area</p> <p><b>Likelihood of Future Occurrences</b>  Highly Likely: Near 100% chance of occurrence in next year, or happens every year.  Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less.  Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years.  Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.</p> <p><b>Magnitude/Severity</b>  Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths  Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability  Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability  Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid</p> <p><b>Significance</b>  Low: minimal potential impact  Medium: moderate potential impact  High: widespread potential impact</p> <p><b>Climate Change Influence</b>  Low: minimal potential impact  Medium: moderate potential impact  High: widespread potential impact</p>					

## I.5 Hazard Profile and Vulnerability Assessment

The intent of this section is to profile the District's hazards and assess the District's vulnerability separate from that of the Placer County Planning Area as a whole, which has already been assessed in Section 4.3 Hazard Profiles and Vulnerability Assessment in the Base Plan. The hazard profiles in the Base Plan discuss overall impacts to the Placer County Planning Area and describes the hazard problem description, hazard location and extent, magnitude/severity, previous occurrences of hazard events and the likelihood of future occurrences. Hazard profile information specific to the District is included in this Annex. This vulnerability assessment analyzes the property and other assets at risk to hazards ranked of medium or high significance specific to the District. For more information about how hazards affect the County as a whole, see Chapter 4 Risk Assessment in the Base Plan.

### I.5.1. Hazard Profiles

Each hazard vulnerability assessment in Section I.5.3, includes a hazard profile/problem description as to how each medium or high significant hazard (as shown in Table I-2) affects the District and includes information on past hazard occurrences and the likelihood of future hazard occurrence. The intent of this section is to provide jurisdictional specific information on hazards and further describes how the hazards and risks differ across the Placer County Planning Area.

### I.5.2. Vulnerability Assessment and Assets at Risk

This section identifies the District's total assets at risk, including values at risk, populations at risk, critical facilities and infrastructure, natural resources, and historic and cultural resources. Growth and development trends are also presented for the District. This data is not hazard specific, but is representative of total assets at risk within the District.

#### *Assets at Risk and Critical Facilities*

This section considers the FPUD's assets at risk, with a focus on key District assets such as critical facilities, infrastructure, and other District assets and their values. With respect to District assets, the majority of these assets are considered critical facilities as defined for this Plan. Critical facilities are defined for this Plan as:

*Any facility, including without limitation, a structure, infrastructure, property, equipment or service, that if adversely affected during a hazard event may result in severe consequences to public health and safety or interrupt essential services and operations for the community at any time before, during and after the hazard event.*

This definition is further refined by separating out three classes of critical facilities:

*Class 1 facilities include those facilities that contribute to command, control, communications and computer capabilities associated with managing an incident from initial response through recovery.*

*Class 2 facilities include those facilities that house Emergency Services capabilities.*

*Class 3 facilities are those facilities that enable key utilities and can be used as evacuation centers/shelters/mass prophylaxis sites, etc.*

Additional information on the three classes of critical facilities is described further in Section 4.3.1 of the Base Plan.

Table I-3 lists critical facilities and other District assets identified by the District Planning Team as important to protect in the event of a disaster. FPUD's physical assets, valued at over \$67 million, consist of the buildings and infrastructure to support the District's operations.

*Table I-3 FPUD Critical Facilities, Infrastructure, and Other District Assets*

Name of Asset	Facility Type	Replacement Value	Which Hazards Pose Risk
Sugar Pine Dam	Earth dam	60,000,000	Fire, slide
Water Treatment Plant	Treatment plant	5,000,000	Fire
Headquarters Building	Office building	500,000	Fire
Water Storage Tank	Storage tank	1,500,000	Tree mortality
<b>Total</b>		<b>\$67,000,000</b>	

Source: FPUD

### *Populations Served*

Also potentially at risk should the District be affected by natural hazard events are the populations served by the District. The District currently incorporates an area of approximately 13,000 acres and contains primarily residential development. The District as of February 1, 2020 provides 2,034 water service connections.

### *Natural Resources*

FPUD has a variety of natural resources of value to the District. These natural resources parallel that of Placer County as a whole. Information can be found in Section 4.3.1 of the Base Plan.

### *Historic and Cultural Resources*

FPUD has a variety of historic and cultural resources of value to the District. These historic and cultural resources parallel that of Placer County as a whole. Information can be found in Section 4.3.1 of the Base Plan.

### *Growth and Development Trends*

General growth in the District parallels that of the Placer County Planning Area as a whole. Information can be found in Section 4.3.1 of the Base Plan.

## Future Development

The District has no control over future development in areas the District services. Future development in these areas parallels that of the Placer County Planning Area. Growth is occurring at about 2% per year. There are no plans at this time to expand the District service area. More general information on growth and development in Placer County as a whole can be found in “Growth and Development Trends” in Section 4.3.1 Placer County Vulnerability and Assets at Risk of the Base Plan.

### I.5.3. Vulnerability to Specific Hazards

This section provides the vulnerability assessment, including any quantifiable loss estimates, for those hazards identified above in Table I-2 as high or medium significance hazards. Impacts of past events and vulnerability of the District to specific hazards are further discussed below (see Section 4.1 Hazard Identification in the Base Plan for more detailed information about these hazards and their impacts on the Placer County Planning Area). Methodologies for evaluating vulnerabilities and calculating loss estimates are the same as those described in Section 4.3 of the Base Plan.

An estimate of the vulnerability of the District to each identified priority hazard, in addition to the estimate of likelihood of future occurrence, is provided in each of the hazard-specific sections that follow. Vulnerability is measured in general, qualitative terms and is a summary of the potential impact based on past occurrences, spatial extent, and damage and casualty potential. It is categorized into the following classifications:

- **Extremely Low**—The occurrence and potential cost of damage to life and property is very minimal to nonexistent.
- **Low**—Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
- **Medium**—Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- **High**—Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.
- **Extremely High**—Very widespread with catastrophic impact.

Depending on the hazard and availability of data for analysis, this hazard specific vulnerability assessment also includes information on values at risk, critical facilities and infrastructure, populations at risk, and future development.

## *Dam Failure*

**Likelihood of Future Occurrence**–Unlikely

**Vulnerability**–Medium

### **Hazard Profile and Problem Description**

Dams are manmade structures built for a variety of uses including flood protection, power generation, agriculture, water supply, and recreation. When dams are constructed for flood protection, they are usually engineered to withstand a flood with a computed risk of occurrence. For example, a dam may be designed to contain a flood at a location on a stream that has a certain probability of occurring in any one year. If prolonged periods of rainfall and flooding occur that exceed the design requirements, that structure may be overtopped or fail. Overtopping is the primary cause of earthen dam failure in the United States.

### **Location and Extent**

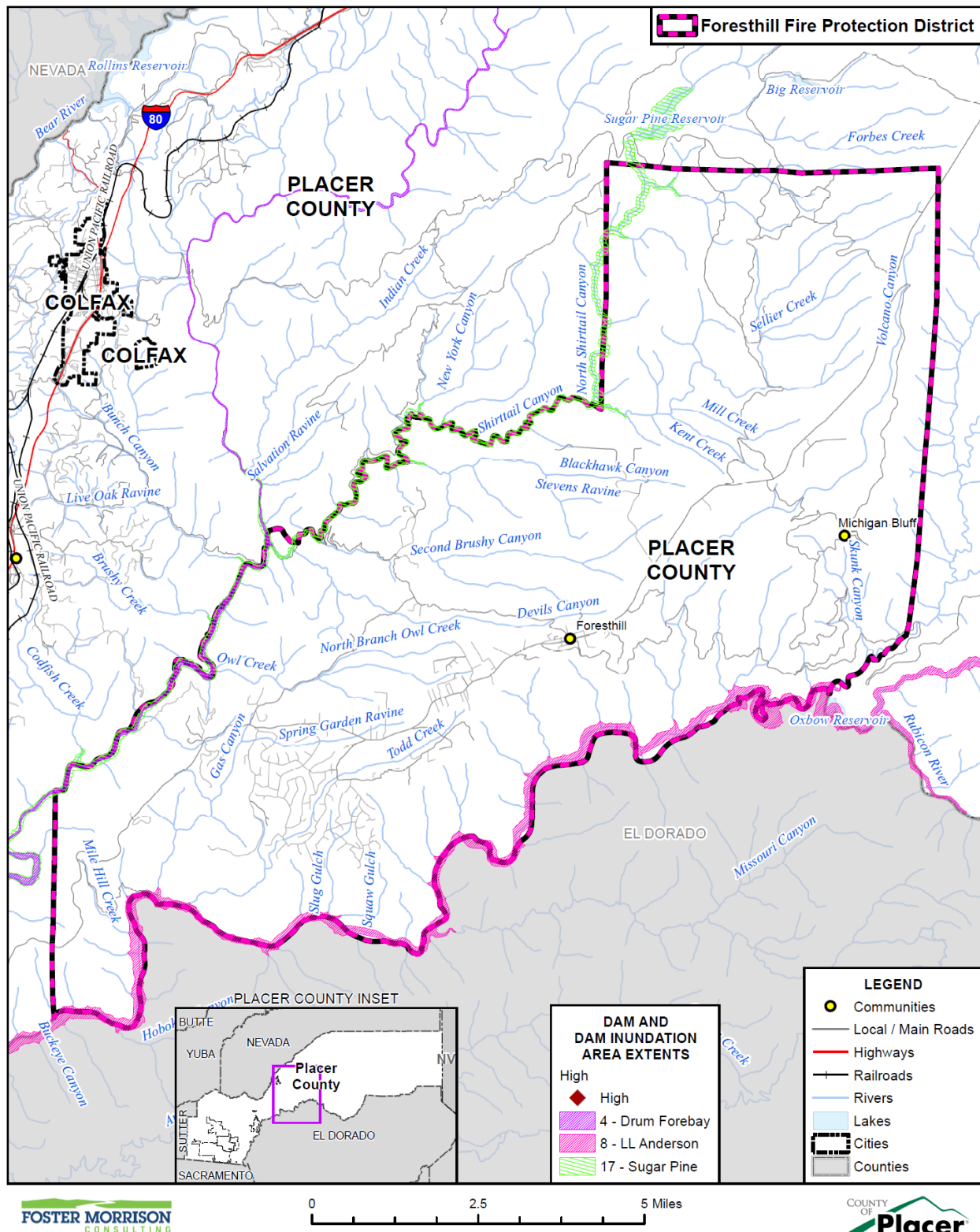
Dam failure is a natural disaster from two perspectives. First, the inundation from released waters resulting from dam failure is related to naturally occurring floodwaters. Second, a total dam failure would most probably happen as a consequence of the natural disaster triggering the event, such as an earthquake. There is no scale with which to measure dam failure. However, Cal DWR Division of Safety of Dams (DOSD) assigns hazard ratings to dams within the State that provides information on the potential impact should a dam fail. The following two factors are considered when assigning hazard ratings: existing land use and land use controls (zoning) downstream of the dam. Dams are classified in four categories that identify the potential hazard to life and property: Low, Significant, High, and Extremely High. These were discussed in more detail in Section 4.3.9 of the Base Plan.

While a dam may fill slowly with runoff from winter storms, a dam break has a very quick speed of onset. The duration of dam failure is generally not long – only as long as it takes to empty the reservoir of water the dam held back. The District would be affected for as long as the flood waters from the dam failure took to drain downstream.

Dams inside the County that can affect the District can be seen on Figure I-2. Dams outside the County that can affect the District can be seen on Figure I-3.

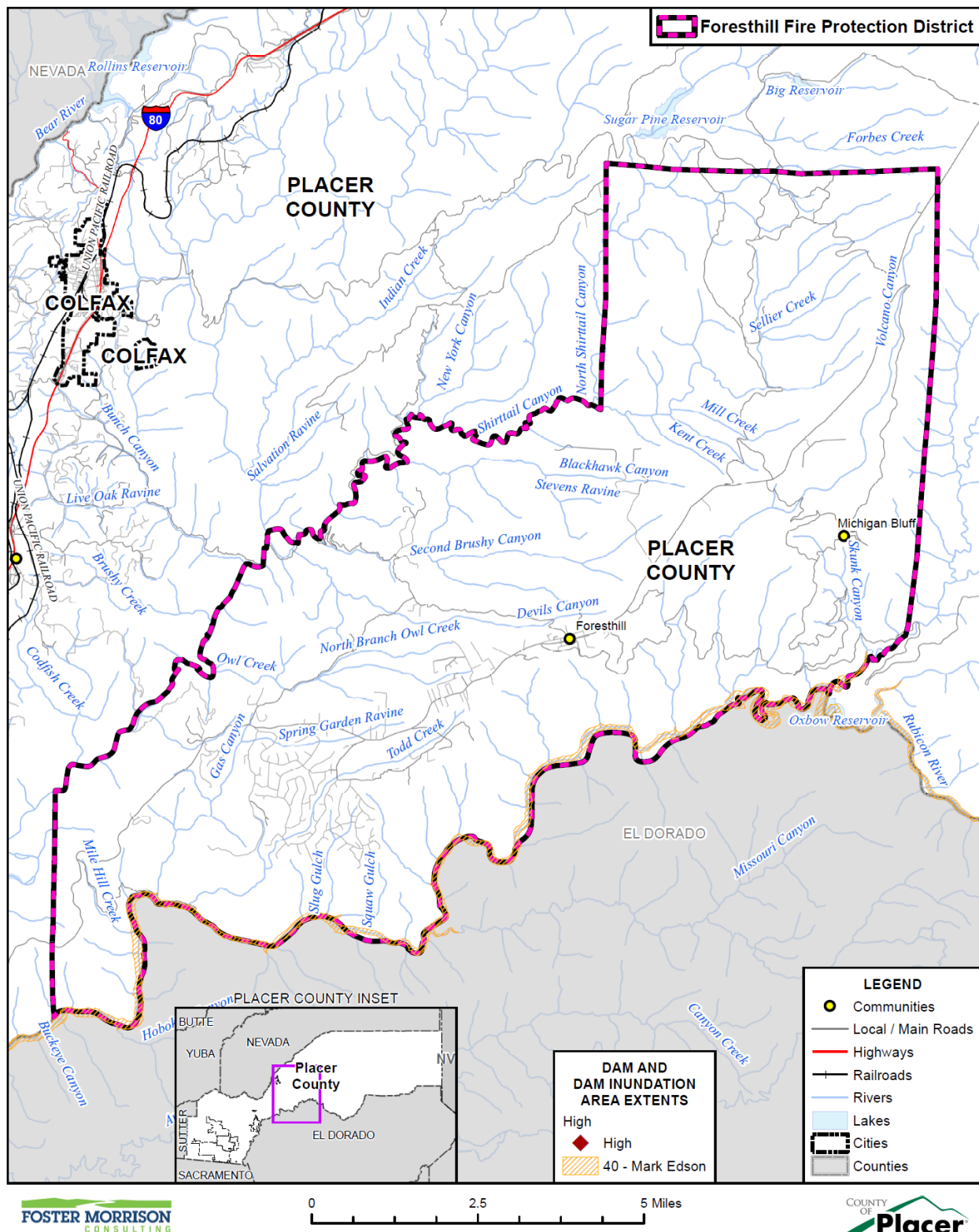


Figure I-2 FPUD – Dam Inundation Areas from Dams Inside the County



Data Source: DWR DSOD Data 2020, Placer County GIS, Cal-Atlas, NVBLM; Map Date: 2021.

Figure I-3 FPUD – Dam Inundation Areas from Dams Outside the County



In addition to these shown above, the Sugar Pine Dam is a zoned earthfill dam constructed in 1982. The dam is 205.1 feet high with a volume of 981,000 cubic yards. The reservoir behind the dam holds 6,922 acre feet. The dam is in excellent condition.

### **Past Occurrences**

There has been no federal or state disaster declarations for dam failure in the County. The District noted no other dam failure occurrences that have affected the District. The District has had two earthquakes in the general area. We followed emergency protocol and inspected the dam. The District found no damage from the earthquakes.

### **Vulnerability to and Impacts from Dam Failure**

Dam failure flooding would vary by community depending on which dam fails and the nature and extent of the dam failure and associated flooding. Impacts to the District from a dam failure flood could include loss of life and injury, flooding and damage to property and structures, damage to critical facilities and infrastructure, loss of natural resources, and all other flood related impacts. Additionally, mass evacuations and associated economic losses can also be significant.

Failure of the dam at Big Reservoir would concern the District. The impact would be to fill and possibly spill Sugar Pine Reservoir.

### **Assets at Risk**

The reservoir and spillway were designed to accommodate a failure.

### ***Drought & Water Shortage***

**Likelihood of Future Occurrence**—Likely

**Vulnerability**—Medium

### **Hazard Profile and Problem Description**

Drought is a complex issue involving many factors—it occurs when a normal amount of precipitation and snow is not available to satisfy an area’s usual water-consuming activities. Drought can often be defined regionally based on its effects. Drought is different than many of the other natural hazards in that it is not a distinct event and usually has a slow onset. Drought can severely impact a region both physically and economically. Drought affects different sectors in different ways and with varying intensities. Adequate water is the most critical issue and is critical for agriculture, manufacturing, tourism, recreation, and commercial and domestic use. As the population in the area continues to grow, so will the demand for water.

### **Location and Extent**

Drought and water shortage are regional phenomenon. The whole of the County, as well as the whole of the District, is at risk. The US Drought Monitor categorizes drought conditions with the following scale:

- None
- D0 – Abnormally dry
- D1 – Moderate Drought
- D2 – Severe Drought
- D3 – Extreme drought
- D4 – Exceptional drought

Drought has a slow speed of onset and a variable duration. Drought can last for a short period of time, which does not usually affect water shortages and for longer periods. Should a drought last for a long period of time, water shortage becomes a larger issue. Current drought conditions in the District and the County are shown in Section 4.3.10 of the Base Plan.

### Past Occurrences

There has been one state and one federal disaster declaration due to drought since 1950. This can be seen in Table I-4.

*Table I-4 Placer County – State and Federal Disaster Declarations Summary 1950-2020*

Disaster Type	State Declarations		Federal Declarations	
	Count	Years	Count	Years
Drought	1	2014	1	1977

Source: Cal OES, FEMA

Since drought is a regional phenomenon, past occurrences of drought for the District are the same as those for the County and includes 5 multi-year droughts over an 85-year period. Details on past drought occurrences can be found in Section 4.3.10 of the Base Plan.

The District was impacted by the drought in 1977. This drought led to the investment and construction of the Sugar Pine Dam and Reservoir.

### Vulnerability to and Impacts from Drought and Water Shortage

Based on historical information, the occurrence of drought in California, including the District, is cyclical, driven by weather patterns. Drought has occurred in the past and will occur in the future. Periods of actual drought with adverse impacts can vary in duration, and the period between droughts can be extended. Although an area may be under an extended dry period, determining when it becomes a drought is based on impacts to individual water users. Drought impacts are wide-reaching and may be economic, environmental, and/or societal. Tracking drought impacts can be difficult.

The most significant qualitative impacts associated with drought in the Placer County Planning Area are those related to water intensive activities such as agriculture, wildfire protection, municipal usage, commerce, tourism, recreation, and wildlife preservation. Mandatory conservation measures are typically implemented during extended droughts. Drought conditions can also cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding. With a reduction in water, water supply issues based on water rights becomes more evident. Climate change may create additional impacts to drought and water shortage in the County and the District.

During periods of drought, vegetation can dry out which increases fire risk. Drought that occurs during periods of extreme heat and high winds can cause Public Safety Power Shutoff (PSPS) events to be declared in the County. More information on power shortage and failure can be found in the Severe Weather: Extreme Heat Section below, as well as in Section 4.3.2 of the Base Plan.

### Assets at Risk

All District assets (from Table I-3) are at risk from this hazard.

## I.6 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation education, outreach, and partnerships, and other mitigation efforts.

### I.6.1. Regulatory Mitigation Capabilities

Table I-5 lists regulatory mitigation capabilities, including planning and land management tools, typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in the FPUD.

*Table I-5 FPUD Regulatory Mitigation Capabilities*

Plans	Y/N Year	Does the plan/program address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan/General Plan	2011 (?)	Yes
Capital Improvements Plan	2021	yes
Economic Development Plan	?	I think the county has this
Local Emergency Operations Plan	2021	yes
Continuity of Operations Plan	2021	yes
Transportation Plan	N	
Stormwater Management Plan/Program	N	
Engineering Studies for Streams	2020	Yes
Community Wildfire Protection Plan	?	
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)		
<b>Building Code, Permitting, and Inspections</b>	<b>Y/N</b>	<b>Are codes adequately enforced?</b>
Building Code	N	Version/Year:



Building Code Effectiveness Grading Schedule (BCEGS) Score	N	Score:
Fire department ISO rating:	2019	Rating: 04/4Y
Site plan review requirements	?	
Is the ordinance an effective measure for reducing hazard impacts?		
Land Use Planning and Ordinances	Y/N	Is the ordinance adequately administered and enforced?
Zoning ordinance		
Subdivision ordinance		
Floodplain ordinance		
Natural hazard specific ordinance (stormwater, steep slope, wildfire)		
Flood insurance rate maps		
Elevation Certificates		
Acquisition of land for open space and public recreation uses		
Erosion or sediment control program		
Other		
How can these capabilities be expanded and improved to reduce risk?		
The District has limited regulatory mitigation capability, and depends on the County to provide regulation. Planning and land management tools assist the district in implementing hazard mitigation activities by have pre-thought necessary activities and responsibilities. Future planning will seek to plan for natural hazards and their mitigation.		

Source: FPUD

## I.6.2. Administrative/Technical Mitigation Capabilities

Table I-6 identifies the District department(s) responsible for activities related to mitigation and loss prevention in FPUD.

*Table I-6 FPUD's Administrative and Technical Mitigation Capabilities*

Administration	Y/N	Describe capability Is coordination effective?
Planning Commission	N	
Mitigation Planning Committee	N	
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	N	
Mutual aid agreements	N	
Other		
Staff	Y/N FT/PT	Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	N	
Floodplain Administrator	N	

Emergency Manager	Y	Yes
Community Planner	N	
Civil Engineer	Y	Yes
GIS Coordinator	Y	Yes
Other		
<b>Technical</b>		
Warning systems/services (Reverse 911, outdoor warning signals)	Y	Yes
Hazard data and information	Y	Yes
Grant writing	Y	Yes
Hazus analysis	N	
Other		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		
The District could use additional resources to improve and expand mitigation and loss prevention. This includes training staff on mitigation related efforts, as well as seeking coordination with the County and other local agencies on hazard mitigation related items.		

Source: FPUd

### I.6.3. Fiscal Mitigation Capabilities

Table I-7 identifies financial tools or resources that the District could potentially use to help fund mitigation activities.

*Table I-7 FPUd's Fiscal Mitigation Capabilities*

Funding Resource	Access/ Eligibility (Y/N)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital improvements project funding	Y	Yes, construction, yes
Authority to levy taxes for specific purposes	Y	Yes construction of improvements, yes
Fees for water, sewer, gas, or electric services	Y	Yes, operations, yes
Impact fees for new development	Y	Yes, operations, yes
Storm water utility fee	N	
Incur debt through general obligation bonds and/or special tax bonds	Y	Yes, construction, yes
Incur debt through private activities	Y	Yes, loan repayment/asset acquisition, yes
Community Development Block Grant	?	
Other federal funding programs	Y	Yes, construction, yes
State funding programs	Y	Yes, construction, yes
Other		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		
The District could expand securing debt to fund activities that would mitigate hazards and reduce risk.		

Source: FPUD

## I.6.4. Mitigation Education, Outreach, and Partnerships

Table I-8 identifies education and outreach programs and methods already in place that could be/or are used to implement mitigation activities and communicate hazard-related information.

*Table I-8 FPUD's Mitigation Education, Outreach, and Partnerships*

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	y	The Foresthill Forum discuss all of these topics
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	y	The district has a public outreach program
Natural disaster or safety related school programs	n	
StormReady certification	n	
Firewise Communities certification	y	
Public-private partnership initiatives addressing disaster-related issues		
Other		
How can these capabilities be expanded and improved to reduce risk?		
The District could allocate additional resources to expand and improve programs designed to reduce risk. The District will seek to increase the outreach done by those supporting the FireWise Community certification. Outreach programs will seek to have a mitigation component in the future.		

Source: FPUD

## I.6.5. Other Mitigation Efforts

The District has many other completed or ongoing mitigation efforts that include the following:

- Completion of the Foresthill Road Pipeline (see Figure I-4)

*Figure I-4 Foresthill Road Pipeline*



Source: FPUD

- Completion of Water Storage Tank (see Figure I-5)

*Figure I-5 Water Storage Tank*



## I.7 Mitigation Strategy

### I.7.1. Mitigation Goals and Objectives

The FPUD adopts the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 5 Mitigation Strategy.

### I.7.2. Mitigation Actions

The planning team for the FPUD identified and prioritized the following mitigation actions based on the risk assessment. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline are also included. The following hazards were considered a priority for purposes of mitigation action planning:

- Dam Failure
- Drought & Water Shortage

It should be noted that many of the projects submitted by each jurisdiction in Table 5-4 in the Base Plan benefit all jurisdictions whether or not they are the lead agency. Further, many of these mitigation efforts are collaborative efforts among multiple local, state, and federal agencies. In addition, the countywide public outreach action, as well as many of the emergency services actions, apply to all hazards regardless of hazard priority. Collectively, this multi-jurisdictional mitigation strategy includes only those actions and projects which reflect the actual priorities and capacity of each jurisdiction to implement over the next 5-years covered by this plan. It should further be noted, that although a jurisdiction may not have specific projects identified for each priority hazard for the five year coverage of this planning process, each jurisdiction has focused on identifying those projects which are realistic and reasonable for them to implement and would like to preserve their hazard priorities should future projects be identified where the implementing jurisdiction has the future capacity to implement.

#### *Multi-Hazard Actions*

##### *Action 1. Drought, Dam Failure/ additional of radial gates to dam*

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**Hazards Addressed:** Drought and dam failure

**Goals Addressed:** 1, 2, 3, 4, 5, 6, 7

**Issue/Background:** Installing radial gates would address drought issues for the community of Foresthill and strengthen the spillway reducing the possibility of dam failure

**Project Description:** Installation of radial gates in the Sugar Pine Dam spillway

**Other Alternatives:** none



**Existing Planning Mechanism(s) through which Action Will Be Implemented:** Foresthill Public Utility District Capital Improvement Plan and the Foresthill Public Utility District Master Plan

**Responsible Agency/ Department/Partners:** Foresthill Public Utility District

**Cost Estimate:** \$10,000,000

**Benefits (Losses Avoided):** Radial gates would increase storage capacity of Sugar Pine Reservoir by 30% thereby reducing impacts of drought and climate change

**Potential Funding:** Federal grants and partnerships

**Timeline:** Project is shovel ready and complete in two years

**Project Priority (H, M, L):** high